

# **OKLAHOMA STATE UNIVERSITY**

## **Spears School of Business**

### **SOX Effects on Audit Fees**

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Thesis Director: Angela Spencer

Second Reader: Leah Muriel

#### **Abstract**

Audit fees change year to year based off of fee models audit firms implement, and a large factor is the auditor effort and assumed liability of taking on a client. As the Big Four and Non-Big Four firms take on clients, the audit fees fluctuate year to year as internal controls are deemed to be effective or not effective. Utilizing audit fee data from 2014-2016, this paper analyzes audit fees considering (1) whether or not firms have effective internal controls and (2) whether or not the firm is audited by a Big Four audit firm. Results indicate there was a trend of increased audit fees when internal controls were found to be not effective. The observed changes in audit fees that were found provide evidence of an indirect relationship to auditor liability.

Audit fees for Big Four were nearly double when internal controls were not effective. Non-Big Four data had variation due to smaller sample sizes. Auditor liability is the risk of litigation from shareholders for giving incorrect audit opinions on an auditee's audit. The Big Four audit 98 percent of global market capitalization (Franzel, 2013), so they take on more risk than Non-Big Four firms and the risk needs to be offset by an increase in audit fees/premium. This is a method of managing their exposure to liability. Since more audit effort is put forth in engagements where

there is litigation risk/auditor liability the increase in fees can be seen as an improvement in quality of audits due to increased audit effort. It is in the best interest of an audit firm to avoid litigation from shareholders, because the damage to market value and reputation can cause irreparable damage. The results from 2014 to 2016 are meant to provide an update to the effects of SOX on audit fees and the connection to auditor liability. This data should provide further evidence of the continuous effects of SOX.

## **Introduction**

Following implementation of the Sarbanes Oxley Act of 2002 (SOX), there have been businesses leaving the Big Four accounting firms due to the expense of pricier audits. The Big Four consist of E&Y, KPMG, PWC, and Deloitte. The moves from large to small audit firms can potentially be a concern, because smaller firms may not have the expertise for publically traded clients. SOX has affected many areas of audit engagements and more specifically, audit pricing. The audit environment is constantly changing and audit fees are a measurable value that relates indirectly to auditor liability. As auditor liability increases then audit fees tend to increase. Auditors are required to adhere to stricter standards post-SOX, so there is risk assumed when auditing clients. The more risk a client poses to an auditor the higher the audit fees. This paper provides a brief literature review of how SOX affects audit fees, then focuses on more recent changes in audit fees from 2014 to 2016. The observed changes in audit fees that were found from data gathered from Audit Analytics can then provide insight into the indirect relationship to auditor liability. If a material weakness is found, then internal controls are deemed not effective. This study focuses on whether internal controls are effective. The main assumption is that sections from SOX, primarily the testing of internal control and their effectiveness, determine auditor fees based off of the auditor liability assumed from auditing clients with effective or not effective internal controls. Effective internal controls mean there are no material weaknesses in

the ICFR of the audited company. ICFR stands for internal control financial report. Companies have to have an ICFR audit if they are accelerated filers, which is determined by their market value. Market value has to be at least \$75,000,000. A material weakness varies depending upon the client and the industry. If internal controls are effective, then audit fees are expected to be priced at a discount. If internal controls are not effective, then audit fees are expected to be priced at a premium to offset auditor liability.

### **Sections of SOX that affect Audit Fees**

The predominate sections of SOX that affect audit engagements are 101, 103, 202, 204, 401, 404. Section 101 created the PCAOB to regulate the public accounting industry. Greater oversight of the accounting profession suggests that auditors are more likely to be diligent in their audit work. Audit effort is expected to increase as auditors spend more time conducting their audits (Ghosh & Pawlewicz, 2009). Section 103 requires that audit firms retain audit work papers for seven years, provide a second partner review of the audit report, and describe the extent of testing of the internal controls of the company (Ghosh & Pawlewicz, 2009). Sections 202 and 204 require audit committee preapproval for services provided by the external auditor, and greater communication between the auditor and audit committee. Preapproval and increased communication require greater audit work (Ghosh & Pawlewicz, 2009). Section 401 introduces new rules regarding reporting for off-balance-sheet transactions, pro forma financial reporting, and special-purpose entities. These disclosures are expected to increase the effort to audit financial statements (Ghosh & Pawlewicz, 2009). The section that correlates to the data of this study is section 404, which requires the audit firm to attest to the client's management assessment of internal controls as part of the audit engagement (Ghosh & Pawlewicz, 2009). Auditee management has a larger role in internal controls since the enactment of SOX, so managerial ability has more effect on audit fees because they are obligated to have more active

roles in financial reporting (Yutao & Yan, 2017). Managers regulate the internal controls within a company by making sure policies and procedures are followed. These listed sections of SOX require more audit effort post-SOX for financial statement audits, which increases audit fees.

## **Fee Models**

Audit firms price audits based off of different factors that are involved in an engagement. The three things that were found to affect how auditors price are the estimated effort to perform the audit, the rank of personnel required to execute the audit, and the audit firm's perceived risk and rewards (Dickins et al., 2008). Dickins et al. derived these steps based on interviews with practicing auditors. Steps one and two, estimated audit effort and rank of personnel required, are the prime factors that determine how managers price audit fees on an account-by-account analysis of a client's financial statements (Dickins et al., 2008). It was found that audit fees increased by \$400,000 in 2001 to \$900,000 in 2005. This increase suggests that there have been systematic changes in how audits are priced and that additional audit effort is required due to SOX. Through Dickins et al. study, it was found that audit fees increase when there is poorly trained staff at the client's company and decrease when there are well-managed internal controls (2008). The fee model will continue to evolve as new laws and regulations are developed.

## **Low-balling/Discounts and Premiums**

Low-balling is a phrase used when a firm creates a discount for some advantage. The issue with this practice is the belief that it impairs independence. If a firm is willing to sacrifice revenues for the sake of more clients, they may overlook material issues as well to keep clients. In one study it was found that discounting from Big Four firms for initial audit engagements was priced conservatively in 2006 (Huang et al., 2009). This means discounts were not a noticeable trend for 2006 for Big Four firms. A more recent study during the periods of 2007 through 2010

found the Big Four firms discounted their initial-year audit fees that ranged from 16 to 34 percent (Desir et al., 2014). Findings like these show how audit pricing was determined with an overarching goal of maintaining clients for long-term goals.

Another study found that Big Four audit firms ceased discounts post-SOX. In 2001, they granted 24 percent discounts on average to initial audit engagements but from 2005 to 2006 they increased audit fees by 16 percent. It was also found that the Big 4 are less likely to serve as successors after an audit change. These findings suggest that the Big 4 are conservative in their pricing decisions and client acceptance (Huang et al., 2009). The Big 4 could be less likely to serve as successors due to risk re-alignment or clients wanting lower audit fees.

Risk premiums increase audit fees, which is a factor that is difficult to avoid in certain industries. According to Dickins et al., all variables that cause discounts or premiums need to be avoided or controlled so audit fees are fair (2008). The assumption that audit fee premiums and discounts should be avoided has merit. It seems reasonable to have a premium when it comes to not effective internal controls. It is the auditor's right to adjust for risk.

## **Internal Control Weaknesses**

A study was conducted that determined whether internal controls affected audit fees more post-SOX than pre-SOX. This study may show how auditor liability and the way they assess internal controls post-SOX are related. Clients with higher risk due to their personal losses, which also may affect their internal controls, will only increase the legal liability of audit firms post-SOX (Choi et al., 2010). From this study it was determined that companies with inefficient internal controls correlated with higher audit fees and those with well-managed internal controls had lower audit fees from 2003 to 2004, but pre-SOX there was no correlation between audit fees and internal controls from 2000 to 2002 (Choi et al., 2010). Choi et al. found that audit fees are higher across the board post-SOX for all firms due to increased audit effort or auditor's legal

liabilities (2010). This suggests that fees are indirectly related to an increase in auditor liability. The increasing audit fees since the enactment of SOX is evidence of increasing liability. When internal controls were found to be effective post-SOX there were still increases in audit fees (Choi et al., 2010). Auditors are having to comply with stricter standards, so there is more pressure post-SOX to conduct a thorough audit. Firms do not want to be in the same situation as Arthur Anderson. Arthur Anderson dissolved after the Enron scandal due to suspicions of fraud in their dealings with Enron. Another study found information technology improves internal controls, which has a positive impact of reducing auditor fees, so there is an indirect relationship between information technology and audit fees (Chen et al., 2014). The relationship between internal controls and audit fees has been demonstrated to be inverse. Effective internal controls help reduce audit effort and makes the process of an attest engagement more efficient when there is less tests that need completed when it is found internal controls are effective. Another study found that post-SOX firms that found material weaknesses in an audit client were found to have audit fee premiums. Audit clients who remediated their internal controls were found to have decreasing audit fees, but an audit fee premium would still linger compared to audit clients who never had material weaknesses (Munsif et al., 2011). These findings suggest that audit fees tend to be “sticky” for audit clients with material weaknesses in internal controls. This lingering fee can be viewed as a risk premium to auditors who disclosed an internal control problem in the past for the audit clients (Munsif et al., 2011). Ineffective internal controls increase auditor risk, which increases audit fees. It would be interesting to see a future study that measures how long these “sticky” audit fees stay with an auditee. The data obtained from Audit Analytics fails to measure the “sticky” audit fees, but there is still merit in the findings.

## **Auditor Liability**

“The potential legal liability of an auditee and auditor to financial statement users drives the design of external financial reporting systems... the benefits are in the nature of liability avoidance” (Simunic, 1980, p. 162). Simunic talked about the relationship between auditor liability and the way reporting systems are designed. Reporting systems are the same thing as internal controls set up by clients for financial reporting. It has been stated by Choi et al. that internal controls have a relationship with audit fees, depending on whether they are effective or not effective (2010). “The auditor’s expected share of residual liability losses seems to increase only with evidence of significant deterioration in the auditee’s operation” (Simunic, 1980, p. 187). The less efficient operation/internal controls, then the higher the auditor liability. Ghosh & Pawlewicz (2009) examine whether the increased audit effort, expected auditor legal liability, and fees are all correlated due to SOX. They drew a sample from 2000 to 2005 and found an increase in audit fees by 74 percent and found audit fee increases are larger for Big Four firms post-SOX (Ghosh & Pawlewicz, 2009). A study done by Frantz et al. found the market place interprets litigation against audit firms as a signal of decreased audit quality and when restricted to firms within the same industries, the response is more negative (1998). It is in the best interest of an audit firm to avoid litigation, because the damage to market value and reputation can cause irreparable damage. For example, Arthur Anderson dissolved after the revelation of the Enron scandal that helped set up the creation of SOX. The Big Four firms audit the majority of publically traded companies, and with such a large market there is litigation against the firms every year. Litigation is something to be avoided, but the negative effect of litigation also decreases over time as the frequency of non-meritorious lawsuits increases over time (Frantz et al., 1998).

## Sample Selection

The variables taken from Audit Analytics were audit fees, auditor f-key, IC was effective, fiscal year IC opinion, matchfy balsh total assets, and name. Audit fees are the amount audit firms charged a company for auditing their financials. Auditor f-key is a list of audit firms that can be filtered to find the desired firms. IC was effective was a yes or no answer on whether the ICFR audit was effective or not. Fiscal year of IC opinion was the year an opinion was given on the ICFR audit. Matchfy balsh total assets stands for match fiscal year balance sheet total assets and it was the total assets of the company being audited. Name is referring to the names of the audited companies.

The sample sizes were narrowed down from Audit Analytics by eliminating blank rows with no audit fees and total assets. One issue in the data was some auditees only had audit fees given for a single period and not all three periods tested from 2014 to 2016. The reason for the low number of samples in Table 3 are due to the fact that not all companies have to have an audit on their internal control financial report (ICFR). To qualify for an ICFR audit the company has to be an accelerated filer with \$75,000,000 in market capitalization.

This study separates the data into two different categories. The Big Four: E&Y, KPMG, PWC, and Deloitte have their data compiled because they audit more than 98 percent of the global market capitalization of U.S. issuers (Franzel, 2013). The other half is labeled Non-Big Four, which includes every other accounting firm conducting audits. A potential weakness in the data in the Non-Big Four data is that there are different tiers of firms after the Big Four, but this study does not take in to account those tiers as separate categories.

The data is split between the different asset ranges, which show increases in audit fees as total assets rises. Table 1 through Table 4 each have bold columns, which means they are not effective internal controls. The columns to the left of the bolded columns were effective internal



controls. All tables reflect data in median values. The mean values had an excess amount of variation, so median values were able to present data with merit.

## Table 1

Table 1 below shows Big Four effective internal control vs not effective internal control. The median values found that audit fees increased as asset ranges increased and there was a connection between internal control effectiveness and audit fees. The bolded columns represent not effective internal control and the data year to year shows that audit fees are higher compared to the columns to the left of the bolded columns, which are effective internal controls.

**Table 1: Big Four Effective IC vs Not Effective IC**

Median Audit Fees (\$)						
Total Asset Ranges (billions \$)	2014		2015		2016	
	n=1,857 Effective ICFR	n=136 Not Effective ICFR	n=1,816 Effective ICFR	n=118 Not Effective ICFR	n=1,657 Effective ICFR	n=100 Not Effective ICFR
Up to 1	819,769	<b>1,214,000</b>	861,315	<b>1,653,000</b>	940,555	<b>1,380,750</b>
1-2	1,394,590	<b>1,376,250</b>	1,477,960	<b>2,184,645</b>	1,520,000	<b>2,262,700</b>
2-3	1,655,000	<b>1,857,320</b>	1,938,000	<b>2,503,000</b>	2,042,970	<b>3,028,750</b>
3-4	2,049,430	<b>1,753,560</b>	1,898,310	<b>5,004,500</b>	1,907,120	<b>4,500,000</b>
4-5	2,000,000	<b>2,914,210</b>	2,392,050	<b>3,335,960</b>	2,104,500	<b>4,486,000</b>

## Table 2

Table 2 below shows the median percent changes per year for Table 1. The data breaks down the audit increases or decreases and shows the high percentage increases in audit fees. With a few exceptions in the data the difference in increase of audit fees for not effective internal controls is more than double the effective internal control columns. This supports the indirect relationship that auditor liability effects audit fees when internal controls are not effective.

**Table 2: Big Four Audit Fee Percent Changes per Year**

Median % Changes per Year						
Total Asset Ranges (billions \$)	2014-2015		2015-2016		2014-2016	
	Effective ICFR	Not Effective ICFR	Effective ICFR	Not Effective ICFR	Effective ICFR	Not Effective ICFR
Up to 1	5.07	<b>34.68</b>	9.20	<b>(15.55)</b>	14.73	<b>13.74</b>
1-2	5.98	<b>58.74</b>	2.84	<b>3.57</b>	8.99	<b>64.41</b>
2-3	17.10	<b>34.76</b>	5.42	<b>21.00</b>	23.44	<b>63.07</b>
3-4	(7.37)	<b>185.39</b>	0.46	<b>(10.08)</b>	(6.94)	<b>156.62</b>
4-5	19.60	<b>14.47</b>	(12.02)	<b>34.47</b>	5.23	<b>53.94</b>

### Table 3

Table 3 below has the same layout as Table 1, but it deals with Non-Big Four effective internal controls vs effective internal controls. The finding from Table 1 are not the same here in Table 3. There are no trends in data and there is missing data due to lower sample sizes. The variation may be due to many companies not filing an ICFR when narrowing down the sample by Non-Big Four firms. The sample sizes may be too small to produce accurate median audit fees that would demonstrate the same trends as Table 1.

**Table 3: Non-Big Four Effective IC vs Not Effective IC**

Median Audit Fees (\$)						
Total Asset Ranges (billions \$)	2014		2015		2016	
	n=615 Effective ICFR	n=48 Not Effective ICFR	n=633 Effective ICFR	n=56 Not Effective ICFR	n=588 Effective ICFR	n=56 Not Effective ICFR
Up to 1	378,600	<b>429,598</b>	405,841	<b>546,741</b>	436,609	<b>515,848</b>
1-2	273,133	<b>2,100,610</b>	285,600	<b>1,731,000</b>	313,529	<b>1,559,000</b>
2-3	446,763	<b>1,455,820</b>	422,171	<b>1,136,195</b>	412,715	<b>939,060</b>
3-4	469,250	<b>2,449,745</b>	466,000	<b>Na</b>	504,200	<b>Na</b>
4-5	543,000	<b>3,638,500</b>	588,725	<b>2,924,870</b>	437,057	<b>1,093,180</b>

## Table 4

Table 4 below shows the median percent changes year to year for Non-Big Four firms.

The variation in the data is due to the same problems listed as Table 3 above. This data could be improved by narrowing down samples to just companies who have data present for all three years and by finding more companies to put in the data set, but this study was limited due to time constraints.

**Table 4: Non-Big Four Audit Fee Percent Changes per Year**

Median % Changes per Year						
Total Asset Ranges (billions \$)	2014-2015		2015-2016		2014-2016	
	Effective ICFR	Not Effective ICFR	Effective ICFR	Not Effective ICFR	Effective ICFR	Not Effective ICFR
Up to 1	7.20	<b>27.27</b>	7.58	<b>(5.65)</b>	15.32	<b>20.08</b>
1-2	4.56	<b>(17.60)</b>	9.78	<b>(9.94)</b>	14.79	<b>(25.78)</b>
2-3	(5.50)	<b>(21.95)</b>	(2.24)	<b>(17.35)</b>	(7.62)	<b>(35.50)</b>
3-4	(0.69)	<b>Na</b>	8.20	<b>Na</b>	7.45	<b>Na</b>
4-5	8.42	<b>(19.61)</b>	(25.76)	<b>(62.62)</b>	(19.51)	<b>(69.96)</b>

## **Conclusion**

The observed changes in audit fees that were found in predominately in Table 1 and Table 2 provides evidence of an indirect relationship to auditor liability. Effective internal controls mean there are no material weaknesses in the financials of an audited company. A material weakness varies depending upon the client and the industry. If a material weakness is found, then internal controls are deemed not effective. This study focuses on whether internal controls are effective when compiling data from Audit Analytics. The main assumption is that sections from SOX, primarily the testing of internal control and their effectiveness, influence auditor fees based off of the auditor liability assumed from auditing clients with effective or not effective internal controls. If internal controls are effective, then audit fees are expected to be priced at a discount. If internal controls are not effective, then audit fees are expected to be priced at a premium to offset auditor liability. By comparing audit fees by effective internal controls vs. not effective internal controls for the Big Four and Non-Big Four firms, there was a trend of increased audit fees as internal controls were found to be not effective. Increased audit fees can be indirectly related to auditor liability. The more risk associated with an audit means firms will protect their interests and increase the benefit of completing the engagement by applying an audit fee premium. More audit effort is being put forth than before SOX for the last sixteen years. Auditor liability has increased since SOX was enacted, because of the noticeable rise in audit fees. When internal controls were found to be effective post-SOX there were still increases in audit fees (Choi et al., 2010). Auditors are having to comply with stricter standards, so there is more pressure post-SOX to conduct a thorough audit.

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